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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,376	10/27/2003	Allen J. Brenneman	MSE #2650	5779
71331	7590	05/18/2009		
NIXON PEABODY LLP 161 N. CLARK STREET 48TH FLOOR CHICAGO, IL 60601			EXAMINER TURK, NEIL N	
			ART UNIT 1797	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/694,376	<b>Applicant(s)</b> BRENNEMAN, ALLEN J.	
	<b>Examiner</b> NEIL TURK	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-14 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-14 and 21-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/6/07, 10/23/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.                                                          | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### Remarks

This Office action fully acknowledges Applicant's remarks filed on January 23rd, 2009. Claims 1-6, 8-14, and 21-30 are pending. Claims 7 and 15-20 have been cancelled. Any objection/rejection not repeated herein has been withdrawn by The Office.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-5, 8, 10, 11, 13, 14, and 25-30** are rejected under 35 U.S.C. 102(b) as being anticipated by Meserol (EP 0254246 A2).

Meserol discloses an improved cuvette. Meserol discloses a cuvette 10 in combination with a lancet 12, where the cuvette has a top 14 (lid) and a bottom 15, closed wall 18, access slot 20 (venting channel connected to the cavity), and a cavity 22 (for fluid, such as blood) (lines 25-40, col. 4, figs 1-4). Meserol discloses that the cavity 22 may be filled with a medium such as an optically transparent gel provided with a reagent test system (lines 8-21, col. 5). Meserol also discloses integrally formed optical elements, such as light beam 30 from source 32, which passes through the cuvette (enclosed input light guide is defined in the optically transmissive portion of the cuvette

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wall 18 where light enters from source 32, and is enclosed within the walls) and is reflected by reflecting prism 50 (input reflector at about 45 degrees to the input light path) across cavity 22 to reflecting prism 48 (output reflector) and back out through the sample cuvette (enclosed output light guide is defined in the optically transmissive portion of the cuvette wall 18 where light is reflected back into enclosed area of cavity and out of the cuvette) to optical element 36 (lines 1-42, col. 5; lines 10-41, col. 6, figs 5&6). Examiner asserts that Meserol discloses the claimed wall structures for forming the input and output light guides, as the wall 18 (containing wall structures having top, bottom, and opposing side surfaces forming the input and output light guide, respectively) is coupled to both reflectors 50 and 48 as seen in figure 5, where the reflectors are formed integrally within the wall 18 (lines 10-21, col. 6., for example).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 6 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Meserol in view of Naka et al. (6,001,307), hereafter Naka.

Meserol has been discussed above.

Meserol does not disclose reagent provided on the lid.

Naka discloses an optical analyzing device in which when the covering 5a is transparent and light may be irradiated through the covering, a reagent film impregnated with a reagent may be stuck on the inner surface of the covering 5a (lines 38-46, col. 10, fig. 1a-b).

It would have been obvious to modify the Meserol device to include reagent provided on the lid such as taught by Naka, such that it would be obvious to place the reagent on the lid (or any location), in which location the reagent will come into contact with the sample solution as desired.

**Claims 12 and 22-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Meserol.

Meserol has been discussed above.

Meserol does not disclose the specific dimension of the light guide, light transmission segment, main cavity, and venting cavity as recited in the above claims.

It would have been obvious through routine experimentation to optimize the Meserol device to the dimensions as recited in the claims in order to provide an optimal light path and venting through the device.

**Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over Meserol in view of Lundsgaard et al. (5,525,518), hereafter Lundsgaard.

Meserol has been discussed above.

Meserol discloses a lancet for obtaining a sample, but does not disclose that the lancet has a second end which deposits the sample into the cavity.

Lundsgaard discloses a needle 20 and sampling cavity connected for determination of a blood gas parameter in which the needle draws a blood sample through aperture 21 and into the conduit 21 down through measuring chambers 300, 400, 500, 600 (lines 52-67, col. 7, fig. 3).

It would have been obvious to modify the Meserol device such as taught by Lundsgaard to provide the other end of the lancet for deposition of the sample into the cavity in order to allow for direct sample deposition on to the test area, so as to avoid any loss of sample incurred from taking the pierced patient's skin and wiping sample into the cavity.

**Claims 1, 3-5, 8, 13, 14, 25, and 27-29** rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson (4,803,992).

Lemelson discloses a catheter or device 10 with an elongated housing 11 (lid with respect to claim 1) that includes a cable 21 that is formed of four separate light pipes 22 (enclosed input light guide of light pipe 22 and enclosed space of catheter walls between light pipe exit and the reflector), 24, 26, and 28 (enclosed output light guide of light pipe 28 and enclosed space of catheter walls between reflector and light pipe 28 inlet). Lemelson further discloses that a cavity 16 is formed in the front end portion 13 that allows light energy to be directed therethrough to scan fluent material, such as body fluid existing in the cavity (line 38, col. 3 – line 2, col. 4; fig. 1). Lemelson also discloses that the device contains a plurality of reflecting surfaces 14 (input reflector) and 15 (output reflector) for respectively receiving light energy passed through the lens 23 of light pipe 22 from a source light and is then directed to reflect off reflecting surface 15 to receiving lens of the light pipe 28 along which it passes to a photoelectric detector coupled to the other end of light pipe 28 (lines 3-54, col. 4).

Lemelson discloses light pipes 22, 28 as input and output light guides, respectively, which have wall structures having first and second ends, in which the second ends thereof are optically coupled with the input reflector 14 and output reflector 15. Lemelson does not disclose such wall structures with second ends being physically coupled to the input and output reflector.

It would have been obvious to modify Lemelson to have the second ends of the wall structures of light pipes 22, 28 physically coupled to input reflector 14 and output

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reflector 15 so as to directly supply the input light to reflector 14 for interrogation of the bodily fluid in cavity 16 and then directly receive the output, resultant light from reflector 15 to be delivered through the output light guide and on to the detector so as to remove any interference and improve detection accuracy by preventing loss interrogation-light and collected-light during the process. Lemelson discloses that the fluid to be interrogated by the light lies within cavity 16 and such an arrangement would bridge the gap between the ends of the light guides (gap before cavity 16) and directly supply and bring back the light, in the case of the output to the fluid in the cavity, thereby maintaining the desired optical interrogation of Lemelson while also removing interference and loss for improved measurement accuracy.

**Claims 11 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson as applied to claims 1, 3-5, 8, 13, 14, 25, and 27-29 above and in further view of Mihalcz (5,264,702).

Lemelson does not disclose square light guides which have wall structures having a top, bottom, and opposing side surfaces.

Mihalcz discloses square optical fibers for carrying light to targets and onto a detector (abstract; lines 1-10, col. 6; figs. 1&2).

It would have been obvious to modify Lemelson to utilize square optical fibers, thus having wall structures with top, bottom, and opposing side surfaces such as taught by Mihalcz so as to provide an obvious alternative shape to the light pipes of Lemelson



which would provide an expectation of success for the same desired function of channeling light for interrogation and receiving light to be detected.

### ***Response to Arguments***

**Applicant's arguments with respect to claims 1-6, 8-14, and 21-30** have been considered but are moot in view of the new ground(s) of rejection, as discussed above.

As previously discussed on the record, the prior art of Meserol and Lemelson had been removed in view of the new matter added in Applicant's response filed on July 22<sup>nd</sup>, 2008. In view of Applicant's current amendments, the previous new matter rejections under 35 USC 112, 1<sup>st</sup> paragraph and rejections under 35 USC 112, 2<sup>nd</sup> paragraph have been removed. However, in view of Applicant's amendments to the claims, the prior art of Meserol and Lemelson have been introduced to reject the claims as discussed above.

Examiner asserts that Meserol discloses the claimed wall structures for the input and output light guides, as the wall 18(containing wall structures having top, bottom, and opposing side surfaces forming the input and output light guide, respectively) is coupled to both reflectors 50 and 48 as seen in figure 5, where the reflectors are formed integrally within the wall 18 (lines 10-21, col. 6., for example).

Further, as discussed above, Examiner asserts that Lemelson discloses the claimed wall structures for the input and output light guides for the obvious reasons discussed above.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NEIL TURK whose telephone number is (571)272-8914. The examiner can normally be reached on M-F, 9-630.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NT

/Jill Warden/  
Supervisory Patent Examiner, Art Unit 1797